UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,771	08/13/2001	Charles R. Buckman	066101.0291	7610

33438 7590 11/17/2005		EXAMINER
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ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2005*.

2a)☒ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 8-32* is/are pending in the application.

   4a) Of the above claim(s) *25-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 8-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *10/31/05*.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-4, and 8-33 are pending in this examination; claims 25-33 are

withdrawn from consideration as being drawn to a nonelected invention. The Office

acknowledges the cancellation of claims 5-7.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on October 30, 2005 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement has been considered by the examiner.

Claim Rejections - 35 USC § 103

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claims 1-4 and 8-24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Shwed et al. (USPN 5,835,726) (hereinafter Shwed).

4.   Referring to claim 1, Shwed discloses a programmable packet based network

having plural nodes for providing services to network subscribers, the network

comprising:

a service creation tool (i.e. a GUI) having an operator interface for programming

a service definition package (i.e. rule base), the service definition package having one

or more packet processing behaviors (i.e. rules) defined in a network programming

language (i.e. the graphical language used by the user) (Figure 3, all; col. 6, line 39 to

col. 8, line 10);

a service control center (i.e. system administrator 102) interfaced with the packet

based network (i.e. connected) and operable to accept the service definition package

for deployment to the predetermined network nodes (i.e. workstations or gateways at

which protection is desired) (col. 6, lines 10-50), the service control center having a

service layer (i.e. GUI, providing a service to the user), an execution layer (i.e. compiler,

executing the code generated by the user), and an infrastructure layer (i.e. the hardware

executing the software 212) (col. 5, lines 55-67; col. 6, lines 40-50), wherein said

service layer comprises service rules (i.e. programmed rules) and a dataflow program

(i.e. a program executed by the processors to control behavior of the packet processing

system) and said execution layer includes a dataflow processor (an inherent feature,

otherwise there would be no hardware to execute the programs necessary to carry out

the packet processing behaviors); and

at least one network node (i.e. gateways or workstations) interfaced with the

network the node having a network processor (an inherent feature if connected to the

network), the node operable to perform the one or more packet processing behaviors

translated from the network programming language (i.e. perform the function that is

desired) (col. 6, lines 40-45).

5.   Shwed does not specifically state that the execution layer includes an expert

system, however expert systems are well known in the art in packet sniffers and other

network monitoring equipment. By this rationale "Official Notice" is taken that both the concept and advantages of providing for a rule based expert system to provide a service is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify the teaching of Shwed to include a rule based expert system in order to provide a network system which can self correct itself in order to defend an attack which it was not previously coded for, thereby providing a more robust system as well as allowing for future upgrades and replacements.

6.   Referring to claim 2, Shwed discloses plural network nodes (i.e. plural gateways) forming an ISP intranet, the packet processing behaviors establishing tunnels between the network nodes (i.e. forming VPNs between the gateways) (e.g. abstract).

7.   Referring to claim 3, Shwed discloses the service creation tool comprises a GUI for defining services in the network programming language (col. 6, lines 35-50).

8.   Referring to claim 4, Shwed discloses a network processor abstraction layer associated with each network processor, the abstraction layer operable to translate the network programming language for execution on the associated network processor (i.e. the system administrator 102 is able to compile the network language into a language which is compatible with each network processor, i.e. gateway or workstation) (col. 6, lines 40-50; col. 8, lines 10-40).

9.   Referring to claim 8, Shwed discloses the invention substantively as described in

claim 7. Shwed does not specifically disclose an FPGA specification and the execution

environment layer includes an FPGA compiler, rather just that the information is

compiled in order to allow the gateways to execute the rule base. However it is well

known that most routers include FPGA chips and firmware can be uploaded in order to

update the security policies. By this rationale, "Official Notice" is taken that both the

concept and advantages of providing for an FPGA specification and an FPGA compiler

in the execution layer of Shwed is well known and expected in the art. It would have

been obvious to one of ordinary skill in the art to modify the teaching of Shwed to

include an FPGO compiler in order to allow the rule base to be executed by a router

running an FPGA chip, resulting in increased customer base as well as a more

compatible software product, resulting in a greater customer base and increased sales.

10.   Referring to claim 9, Shwed discloses the invention substantively as described in

claim 7. Shwed further discloses having a network processor compiler (i.e. packet filter

generator 208) (col. 6, lines 40-60). Shwed does not specifically state that the service

further comprises a network processor pattern tree, however this is a well known feature

of any compiler to convert the program language into a machine readable language. By

this rationale, "Official Notice" is taken that both the concept and advantages of

providing for a processor pattern tree in a compiler is well known and expected in the

art. It would have been obvious to one of ordinary skill in the art to modify the teaching

of Shwed to include a processor pattern tree in order to efficiently and quickly compile

the security rules generated by the GUI into the machine language required for the

packet filter in the network, thus resulting in optimized code for the machine.

11.   Claim 10 is rejected for similar reasons as stated above. Furthermore it is

inherent that the service object is instantiated on the network node, otherwise the code

segment cannot be executed.

12.   Referring to claim 11, Shwed discloses subscribing a network end user customer

to the service through the service control center (i.e. installing the rule base on the end

user workstation inherently subscribes the user to the service of the VPN) (col. 6, lines

10-30).

13.   Referring to claim 12, Shwed disclose providing customer parameters from the

service control center to the network node, the customer parameters represented as

instance variables of customer instances (i.e. the name of the workstations related to

the filter) (Figure 3/2; col. 6, line 60 to col. 7, line 32).

14.   Claims 13, 17, 18, 19, 21, and 24 are rejected for similar reasons as stated

above. Furthermore Shwed discloses the service layer having instructions that identify

packet processing behaviors for execution by predetermined execution elements of a

network node (Figure 6, ref. 604), the execution environment layer representing the

network node execution elements to execute instructions from the service layer (Figure

6, ref. 608), and an infrastructure layer providing management functions to support the

network node execution elements (Figure 9, ref. 912; col. 10, lines 40-60) and Shwed

further discloses a reporting element the execution environment comprising a

procedural abstraction of the reporting element (i.e. the control module 210 is able to

generate user interface information for the data stored in the logs) (col. 6, lines 45-55).

15.   Referring to claims 14-16, Shwed discloses the invention substantively as

described in claim 13. Shwed does not specifically disclose using a drag and drop for

parameters, plural tabs in a window which comprise a shape tab, a classify tab, a

modify tab, and a queue tab, however all of these are design changes which are well.

known in the art (i.e. drag-and-drop, and a plurality of tabs) and these tabs can be

named anything, specifically as to what they do. By this rationale, "Official Notice" is

taken that both the concept and advantages of providing for using a drag and drop for

parameters, plural tabs in a window which comprise a shape tab, a classify tab, a

modify tab, and a queue tab is well known and expected in the art. It would have been

obvious to one of ordinary skill in the art to modify the teaching of Shwed to incorporate

using a drag and drop for parameters, plural tabs in a window which comprise a shape

tab, a classify tab, a modify tab, and a queue tab in order to make the GUI more

pleasing to the user, and creating an effective GUI which will facilitate the user in

making the correct security enhancements to the network.

Response to Amendments

16.   The Office has considered the amendments to claims 19-24. The rejection under

35 USC 101 as being drawn to nonstatutory subject matter is hereby withdrawn.

Response to Arguments

17.   Applicant's arguments with respect to claims 1-4 and 8-24 have been considered

but are moot in view of the new ground(s) of rejection.

Conclusion

18.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

19.   Applicant has failed to seasonably challenge the Examiner's assertions of
well known subject matter in the previous Office action(s) pursuant to the
requirements set forth under MPEP §2144.03. A "seasonable challenge" is an
explicit demand for evidence set forth by Applicant in the next response.
Accordingly, the claim limitations the Examiner considered as "well known" in
the first Office action, are now established as admitted prior art of record for the
course of the prosecution. See In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA
1943).

        Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Joseph E. Avellino whose telephone number is (571)
272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number
for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JEA
November 4, 2005